

REMARKS

Claims 1-2, 4, 5, 11, 15-26 and 77 to 81 are all the claims pending in the application, prior to the present Amendment.

Claims 12 and 23 to 26 have been objected to being dependent on withdrawn claims. In response, applicants have amended claims 12 and 23 to 26 so that they no longer depend on withdrawn claims.

Claims 1, 2, 12, 23, 24, 26 and 81 have been rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Pat. 4,910,255 to Wakabayashi et al in view of U.S. Pat. 6,703,442 to Ando et al.

In addition, claims 1, 12, 23, 25, 26 and 81 have been rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Pat. 6,207,766 to Doi et al in view of U.S. Pat. 6,703,442 to Ando et al.

Applicants submit that Wakabayashi et al et al, Doi et al and Ando et al do not render obvious the present claims and, accordingly, request withdrawal of these rejections.

Applicants have amended claim 1 by incorporating the subject matter of claim 81 and by directing the claims to tin neodecanoate. Support for these amendments can be found in claim 81 and the Examples of the present application. Applicants have canceled claims 4, 5, 11, 15-22, 77-80 and 81.

The Examiner has stated in the present Office Action that the Amendment, Remarks and Declaration Under 37 C.F.R. § 1.132 submitted on May 6, 2010 in response to the last Office Action of January 6, 2010 do not place the present application in condition for allowance.

Applicants, therefore, have further amended the claims as set forth above and enclose herewith a further Declaration Under 37 C.F.R. § 1.132 addressing the points raised by the Examiner in the present Office Action.

The curable composition of the present invention as set forth in amended claim 1 employs a combination of the polyoxyalkylene polymer (A1) having a trimethoxysilyl group or a triethoxysilyl group at the terminals of the molecular chain, a silicate (B), and tin neodecanoate to provide an unexpected effect, that is, excellent curability, creep resistance, and recovery properties. In order to demonstrate the effect of the combination, applicants refer the Examiner to the enclosed Declaration.

As set forth in the enclosed Declaration, the curable composition of the present invention includes the polyoxyalkylene polymer (A1) having a trimethoxysilyl group or a triethoxysilyl group at the terminals of the molecule chain, the silicate (B), and tin neodecanoate. Therefore, the curable composition has excellent curability and provides a cured product with excellent recovery properties and creep resistance.

The Examiner has stated that the showing in the last Declaration is not commensurate in scope with the recitations of the composition recited in the previous claims, which recited a tin carboxylate in which the α -carbon atom of the carboxyl group is a quaternary carbon atom. Accordingly, applicants have now amended the term "a tin carboxylate in which the α -carbon atom of the carboxyl group is a quaternary carbon atom" to read "tin neodecanoate."

Further, applicants have amended claim 1 to recite that the main chain skeleton of the organic polymer (A) is a polyoxyalkylene polymer, based on the Examiner's suggestion.

The Examiner has stated that the catalyst employed in Experiment 6 of the last Declaration is not truly analogous to the catalysts of Experiments 1-5 and thus the composition

of Experiment 6 is not comparable to those of Experiments 1-5. The Examiner also stated that the recovery ratio in Experiment 6 is identical to that in Experiment 1, and therefore it seems that the skin formation times are comparable when employing tin catalysts in which the α -carbon atom of the tin catalyst is a tertiary carbon atom. This statement shows the Examiner assumes that comparable recovery ratios should imply comparable skin formation times.

However, it is clear from the Experiments 1 and 6 of the enclosed Declaration that a curable composition containing a tin neodecanoate (a tin neodecanoate having a quaternary α -carbon atom) has better curability than a curable composition containing a tin carboxylate in which the α -carbon atom of the carboxyl group is a tertiary carbon atom, even in the case that cured articles produced from those compositions have the same recovery ratio.

Moreover, use of a highly active curing catalyst is generally expected to lead to easy cleavage of siloxane bonds functioning as crosslinking points, and thus naturally result in a decrease in the recovery ratio. That is, as seen for example in the results of Experiments 7 and 8 in the last Declaration, a high curing speed (use of a highly active catalyst) generally results in a low recovery ratio. For this reason, achieving both of these properties is very difficult.

In other words, since there is a trade-off between a curing speed and a recovery ratio, it should be very difficult to secure a high recovery ratio while improving the curing speed.

Accordingly, the effect achieved by the present invention (improving both curing speed and recovery ratio) is an excellent effect that a person of ordinary skill in the art could not have expected at the time of filing of the present application.

Meanwhile, the Examiner has pointed out that there does not appear to be significant differences between Experiments 2 and 3 (which utilize the claimed silicates) and Experiment 4 (which utilizes a non-silicate crosslinker) of the last Declaration. The difference between

Experiment 7 (which utilizes a silicate according to the present claims) and Experiment 8 (which utilizes a non-silicate crosslinker) appears to have a more significant difference in skin formation time and recovery ratio.

This point is apparent from the current Declaration, which shows that a curable composition has excellent creep resistance when containing a silicate as the component (B).

In addition, the present invention has a technical feature in use of a combination of a silicate and a specific curing catalyst. Such a combination according to the present invention, namely, a combination of tin neodecanoate and a silicate, improves curability of a curable composition, whereas a conventionally available combination (combination of a silicate and an organotin) deteriorates curability of a curable composition.

The Examiner has also pointed out that the Experiments in the previous Declaration employ specific partial condensates of methyl and ethyl silicate. The previous Declaration, however, also employed Ethyl Silicate 28, which is also employed in the current Declaration. Ethyl Silicate 28, however, is not, in fact, a partial condensate, but is a monomer. Consequently, the showing in the previous Declaration and current Declaration does not limit the silicate in the curable composition of the present invention to a partial condensate.

Wakabayashi et al et al, Doi et al and Ando et al do not disclose the combination set forth in the present claims and the effect achieved by the present invention.

In view of the above, applicants submit that Wakabayashi et al et al, Doi et al and Ando et al do not render obvious the present claims and, accordingly, request withdrawal of these rejections.

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the

Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,



Sheldon I. Landsman
Registration No. 25,430

SUGHRUE MION, PLLC
Telephone: (202) 293-7060
Facsimile: (202) 293-7860

WASHINGTON OFFICE

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